CLAIMS

[Claim(s)]
[Claim 1] In the production-planning creation approach of the plant which manufactures a
product through two or more processes So that the unit from which a time amount frame
serves as constant value may be set up, each unit may be given in order of time amount per
facility Rhine and the order of processing may not be reversed The receipt and payment of
loading time are performed between the unit under current mechanism, and the unit of degree
time amount of degree process, and the loading time and throughput of a unit unit are
calculated. By the ingredient configuration in each unit [in each unit] [by loading time
stacking] The production-planning creation approach characterized by packing the same
ingredient of processing conditions and standing a schedule.

[Translation done.]

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DETAILED DESCRIPTION

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[Detailed Description of the Invention]
[0001]
[Industrial Application] This invention relates to the production-planning creation approach, and
relates to the production-planning creation approach which can produce intentionally the
product especially manufactured through complicated processes, such as ramification and
return.
[0002]
[Description of the Prior Art] Generally, production planning of the plant which manufactures a
product through two or more processes has determined the requirements and the schedule of
a middle process on the basis of the requirements and the schedule of a final process.
[0003] Under the present circumstances, production control unit time amount is set up as
proposed by JP,6-52175,A. The processing time is caught by the integral multiple of this time
amount. The elapsed time of the future [the integral multiple of this production control unit time
amount] A break, This integer is set up small in the near future, and it manages finely. In the
far future This integer is set up greatly, it manages coarsely, grasp and prediction of a motion
of an object, the estimate of a facility load, etc. of a process situation are performed for every
break of this, and the production control method which controlled production based on this is
considered.
[0004] According to this production control method, it is effective in the simple plant where
neither ramification nor return exists, but a product flows to an one direction.
[0005]
[Problem(s) to be Solved by the Invention] On the other hand, there is a complicated process
of two or more lines in which ramification and return exist, for example, the facility with the
same function. Moreover, with the same facility

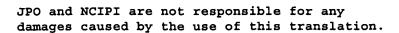●   ●

* NOTICES *

TECHNICAL FIELD

[Industrial Application] This invention relates to the production-planning creation approach, and relates to the production-planning creation approach which can produce intentionally the product especially manufactured through complicated processes, such as ramification and return.
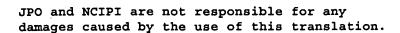

[Translation done.]

* NOTICES *

PRIOR ART

[Description of the Prior Art] Generally, production planning of the plant which manufactures a
product through two or more processes has determined the requirements and the schedule of
a middle process on the basis of the requirements and the schedule of a final process.
[0003] Under the present circumstances, production control unit time amount is set up as
proposed by JP,6-52175,A. The processing time is caught by the integral multiple of this time
amount. The elapsed time of the future [the integral multiple of this production control unit time
amount] A break, This integer is set up small in the near future, and it manages finely. In the
far future This integer is set up greatly, it manages coarsely, grasp and prediction of a motion
of an object, the estimate of a facility load, etc. of a process situation are performed for every
break of this, and the production control method which controlled production based on this is
considered.
[0004] According to this production control method, it is effective in the simple plant where
neither ramification nor return exists, but a product flows to an one direction.

[Translation done.]

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EFFECT OF THE INVENTION

[Effect of the Invention] Since the precision of load estimation improves according to this
invention as explained above, each Rhine operation plan can be rationalized, the in-process
inventory in front of each Rhine can decrease, and resource saving can be planned. Moreover,
the energy loss of the Rhine operation by pause plan outside can be reduced. Furthermore, it
has the effectiveness which was [prevent / the delay of the production activity by the side of
the product user by shipment delay or derangement] excellent with the improvement in
precision of the completion date of each ingredient.

[Translation done.]

TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] On the other hand, there is a complicated process
of two or more lines in which ramification and return exist, for example, the facility with the
same function. Moreover, with the same facility Although the schedule group of each facility is
difficult in a plant where different processes, such as a middle process and a final process, are
processed if the latency time between processes (lead-time L/T) is not decided with a sufficient
precision By the conventional approach, predictability of the latency time between processes
could not be raised, but the schedule group became inadequate, and problems, such as
ingredient lack, an increment in an unfinished product, plan un-attaining [of throughput], and
excess, were produced.
[0006] This invention was made so that it may cancel said conventional trouble, and it aims at
enabling creation of highly precise production planning also in the plant which has a
complicated process containing ramification or return.

[Translation done.]

MEANS

[Means for Solving the Problem] In the production-planning creation approach of a plant that this invention manufactures a product through two or more processes So that the unit from which a time amount frame serves as constant value may be set up, each unit may be given in order of time amount per facility Rhine and the order of processing may not be reversed The receipt and payment of loading time are performed between the unit under current mechanism, and the unit of degree time amount of degree process, and the loading time and throughput of a unit unit are calculated. By the ingredient configuration in each unit [in each unit] [by loading time stacking] Said purpose is attained by packing the same ingredient of processing conditions and standing a schedule.
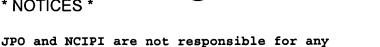

[Translation done.]

OPERATION

[Function] In this invention, since the unit from which a time amount frame serves as constant value is set up, each unit is given in order of time amount per facility Rhine and it is made to perform the receipt and payment of loading time between the unit under present mechanism, and the unit of degree time amount of degree process, even if it is a complicated process containing ramification or return, the order of processing cannot be reversed and highly precise production planning can be formed.

[0009] Moreover, since and he is trying to calculate the loading time and throughput of a unit unit in each unit, the loading time and throughput of a unit unit can be predicted correctly. [by loading time stacking] Therefore, rationalization of each Rhine operation plan, reduction of each in-process inventory in front of Rhine, and prevention of a pause plan outside can be aimed at. Moreover, shipment (time for delivery) delay can be prevented by improvement in precision of the completion date of each ingredient.

[0010] Furthermore, by the ingredient configuration in each unit, since he is trying to pack the same ingredient of processing conditions, useless rational production which is not can be performed.

[Translation done.]

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EXAMPLE

[Example] With reference to a drawing, the example of this invention is explained to a detail
below.
[0012] For example, pretreatment Rhine A-1 of two and A-2 which have the same function
fundamentally and which were installed as shown in drawing 1 , this example Two belt grinding
Rhine B-1 similarly installed, B-2, and rolling Rhine C-1 to C-4 of four similarly installed, It
applies to annealing Rhine D-1 to D-3 of three similarly installed, two temper Rhine E-1
similarly installed, and the production plant of the iron steel part which has E-2. Some products
which passed through either of said annealing Rhine D-1 to D-3 It is returned to said belt
grinding Rhine B-1 or either of B-2, and some other products which similarly passed through
either of annealing Rhine D-1 to D-3 include the return process returned to either of said rolling
Rhine C-1 to C-4.
[0013] Therefore, two pretreatment Rhine A-1 where it ramified for this plant to perform the
same pretreatment fundamentally and A-2,

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] Process drawing showing the production process of the production plant of the iron steel part which is an example for [of this invention] application
[Drawing 2] The flow chart showing the procedure of the example which draws up production planning by this invention
[Drawing 3] The diagram showing the example of Rhine another operation information which is one of the input data at the time of drawing up production planning
[Drawing 4] The diagram showing the example of the important point throughput which is similarly one of the input data
[Drawing 5] The diagram showing the example of the plate-leaping lead time for every plate-leaping process which is similarly one of the input data
[Drawing 6] The diagram showing the example of the plate-leaping date of record which is similarly one of the conversion-program data
[Drawing 7] The diagram showing the example of Rhine another throughput which is similarly one of the conversion-program data
[Drawing 8] The diagram showing the example of Rhine another inventory which is similarly one of the output data
[Description of Notations]
A-1, A-2 -- Pretreatment Rhine
B-1, B-2 -- Belt grinding Rhine
C-1-4 -- Rolling Rhine
D-1-3 -- Annealing Rhine
E-1, E-2 -- Temper Rhine

[Translation done.]